



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

- ART. IV. — 1. G. W. F. HEGEL'S *Werke*. 2^{te} Aufl. Berlin. 1840 – 1845. 15 Bde.
 2. *History of Philosophy from Thales to Comte*. By G. H. LEWES. Vol. I. London. 1867. 2 vols.
 3. *The Journal of Speculative Philosophy*. St. Louis. 1867.

WE have been told very often of late that metaphysics is exploded, obsolete, a proved failure, and now devoid of all rational interest, except, possibly, of an historical or antiquarian kind. A writer in the *Saturday Review* not long since expressed, in the pointed way of that journal, a feeling which is probably not uncommon, even among scholars. “Metaphysics,” he says, “have, indeed, been long sinking into merited contempt. They are cultivated only by those who are engaged, not in action, wherein the true balance of life is maintained, but in dreaming in professorial chairs. . . . By the rest of mankind, whether men of the world or men of science, they are as little regarded as scholastic theology.”

But what, after all, is metaphysics, but thinking which has not stopped at the casual impression or the momentary and personal interest, but has gone on to consider somewhat the nature of the object, apart from the effect which it may happen at any time to produce upon us? All thinking which aims at the truth for its own sake, at the real and permanent in experience, is speculative or metaphysical in its nature. The immediate intuition, whether outward or inward, whether its object be a thing or an opinion, has of itself no reference to truth, and pretends to none, but is wholly wrapped up in its own certainty. What I feel I feel, and it matters not, so long as I feel it, if you demonstrate ever so clearly that the feeling has no real foundation, that nothing is there to produce it, or something quite different from what I suppose. The intuition is deaf to all that, has no organ whereby to apprehend it; for all that is matter of inference, not of direct certainty. But this is as much as to say that we are all metaphysicians, better or worse; for it is clear that the mind never does stop absolutely at the immediate impression, and that the slightest exercise of thought or memory presupposes some theoretical

consideration, some classification of the object. Whatever effect any event may produce in my mind so often as it happens, and however identical the effect may be at different times, the connection of the different instances of its occurrence, as substantially the same thing, and entitled to a common name, is a separate matter, a matter of inference, which has nothing to do with the impression made upon me, but regards the independent nature of the object producing it. All interest in that is primarily speculative, or metaphysical, and only secondarily, or in the use that is made of it, practical or immediate, and the existence of the common name is a direct testimony to such an interest in every one who uses or understands it. All curiosity is distinctly metaphysical. The child shows himself to be a metaphysician, when, instead of sitting down content with his toy, he seeks to investigate its interior, and to know not merely the *What*, but the *Why*, and the *How*. Even the dog has his metaphysics, and, in his dreams, hunts ideal rabbits, and skirmishes with mental cats, — dealing with images which testify to a foregone exercise of this theoretical supererogatory activity in the mind.

Metaphysics, then, may be defined as the investigation of the truth of things, instead of the impressions they make upon us ; or the science of realities as distinguished from mere appearances. This definition, it is true, does not accord with the popular notion that metaphysics means the attempt to discover truth by the interrogation of consciousness, instead of the interrogation of outward facts. But where are we to look for these facts, if not in consciousness ? or what else are we to interrogate in order to get at the truth ? The unconscious feelings, instinct, or sensation ? It is not easy to see how this could be done ; and if it could, the answers they would give would be of not much general use. They are of the kind which has no value except for the owner. A man may profess himself ever so ready to dispense with ideas, and to be content with “positive knowledge,” that is, with formulated sensations ; but this moderation is not so easy to practise, at least if he cares to make himself understood. Show us your sensation. It cannot be shown ; no one can feel the sensation of another, or even his own of another time, but only in a vague way con-

jecture or recollect it. What he knows is not known directly, but through analogy, that is, through reference to a mental standard, a thought that exists in his mind. To know is to classify, to recognize the particular fact as a general fact. The sweetness I taste in sugar does not prove that sugar is sweet, but only that it tastes sweet to me. Perhaps to another person it tastes sour: at any rate, the taste to another person is not given in my sensation, but is accidental as far as that is concerned. Could it be put into words, the certainty of the senses would be expressed always in identical propositions, — sweet is sweet, sour is sour, &c. That my sensation has any extent beyond myself, any validity for another, or again, that other people's sensations are anything to me, implies that these separate and apparently indifferent facts are essentially identical. The meaning of every word we use rests on the assumption that this accidental coincidence of feelings is sure to happen. When I say that I feel hot or cold, I assume that I feel what other people feel, and will continue to feel, whether I happen to feel it or not. The immediate certainty, then, instead of being all in all, is unessential, only an instance, not the truth itself.

It may be said, This is only an affair of names, not of things; the name is only an abstraction, an arbitrary sign, which we learn to affix to similar impressions. I have been taught to associate the words "hot," "cold," &c., with certain sets of circumstances; but this is a mere convenience of speech, and does not touch the real nature of the thing. But although the name may be arbitrary, yet naming is not, any more than hands, feet, or the erect posture are arbitrary, and in it is implied all that is needful, namely, necessary connection. How did we come to know that the impressions were similar, or to know what similarity means? How did we ever begin to attach a meaning to any word? Sensations do not associate themselves, nor have they any part in each other; each is complete in itself, and independent; that they happen to occur in a given order is nothing to them, and can be ascertained only by going beyond them. The common name, however, implies that this apparent independence is a mistake, that the sensation is not absolute, but relative, and the truth it indicates to be ascertained from its relations, and not directly from it.

The whole business of Induction is simply to winnow out from the mass of impressions all that is peculiar and independent, and that has nothing to show for itself but the immediate certainty. The object seems to me hard or soft, near or far, bad or good. Whether it is so or not is another question, and can be determined only by severing the intimate connection with my particular feelings, which makes the essence of the primary certainty. I must try if it seems so to others, or at other times. In the process, however, the object is changed; for what is it but the complex of its conditions? But many of its conditions, we know not how many, are altered: this is not the same river, the same man. Or if it is the same, then it must be that we are entitled to pass over some of the conditions as unimportant. What, then, is important? The only answer from this point of view seems to be, the coherency of experience. We *find* that some of the conditions are unessential; in other words, our theory of the thing requires us to disregard them. It is clear that the standard is no longer the self-evident intuition; if it were, experience would be impossible, since it would require the recurrence of the same conditions. But the same conditions no more recur than the same moment recurs. Experience, then, is allowed to prove itself, and, at least to a certain extent, does not appeal to anything external. Experience does not proceed by the comparison of sensations, but by the comparison of inferences. A philosophy that should restrict itself to the data of sensation would have to content itself with proper names, proper in a double sense, as given by one person to one thing. It would have to betake itself to the artless language of the animal sounds, or indeed — since even these are generic, and not individual — to dumb show.

If we give to the results of immediate certainty the name of *facts*, we may say that the business of science is to understand the facts, to translate them into thoughts. Facts, we are told, are stubborn things, we have to take them as we find them. But nobody does so take them; and as for their stubbornness, they are stubborn only to ignorance, not to knowledge. The stubborn fact is only a provisional memorandum of the point where our knowledge stops. Heat and cold, rock

and earth, the lightning and the magnet, as they seem to the child, are examples of such. But to the man of science they have not this finality, for he sees them as dissolved in a wider generalization. He too, indeed, has his stubborn facts, but he trusts implicitly that they are not to remain stubborn, and it is this trust that makes all the interest of empirical science. The scientific people make a great point of "facts," as if they alone regarded the facts, and as if they regarded nothing else. But their treatment of the facts, when they get them, is far from reverential, or even impartial. No observer sits down to note the fall of every apple from every apple-tree. The botanist does not feel himself obliged to describe each grass-blade in the meadow, or every caterpillar-bite in the leaf. A man would earn but little praise from any scientific body by measuring the curves of his kitten's tail, or computing the orbit his spaniel describes in settling himself to rest. Yet these are as much facts as the rings and the orbit of Saturn, and, if that were all, as much entitled to attention. But it is not enough that the facts exist; they must prove something, — that is, something beyond themselves. If they do not, however stubborn they may be, we neglect them utterly, so utterly that we are not even conscious of the neglect. Not for themselves, but as leading away from themselves, have they value for science. The really independent and stubbornly complete fact is the accident, or the trivial instance that does not awaken the thought of the law. We may as well throw off, then, this pretence of a moderation which we cannot afford to practise, and avow that we do what we cannot help doing, namely, assign purely mental values to all our facts. To endeavor to abstain from this presumptuousness, and to "think objectively" by accepting the facts as they stand, would be to give up thinking.

Goethe said, in his self-complacent way, that he had never thought about thinking. This was, at any rate, not much to boast of; for the operations of the human mind are surely as well worth study as the habits of shell-fish, or the behavior of light-rays. Of course it is not necessary that every man should be a psychologist, any more than that everybody should be a painter or a physician. This, however, is only be-

cause of the diversity of gifts. If it is meant, when such things are said, that thinking about thinking is intrinsically futile or superfluous, it is to be remembered that by this alone, by self-conscious thought, is man distinguished from the brutes. Brutes think, but do not know that they think, do not think about thinking, and thus want individuality and freedom. Their thinking is generic, a matter of outward impulses acting upon the general constitution. The animal's motives are not *his*, but belong to the kind; they are indeed governed by purpose, and the expression of his feelings, the animal grunt or squeal, has meaning; but the purpose is not present to him as universal purpose, as idea, but only as immediate fact, as momentary impulse, and so has unity only in some other mind, as an abstraction gathered from a series of particulars, and does not exist in concrete shape. All the animal's actions, when taken together, prove to be coherent, and adapted to the ends of his being; but he does not take them together, but only performs them successively as the special impulse occurs. Consciousness is the taking together of what really belongs together, but occurs separately. It is often supposed to mean a private and peculiar knowledge which each person has for himself alone. In truth, however, it is the opposite of this, namely, knowledge of universals, and all that makes it seem personal is that the perception of universal validity, or truth reflected back upon the individual perception, gives it dignity and prominence. Hobbes defined consciousness as a knowing together, or in common with others. We are not conscious when we simply feel, but only when we reflect, that is, when we generalize our feelings, and judge them by the common standard. I am not conscious of a sensation until I know to a certain extent what it is, until I class it and name it. In coming out of a state of unconsciousness, for example, in awaking from sleep, our first impulse is to set ourselves to rights in our mental universe, to take up the thread of accustomed associations, and thereby assure ourselves of the validity of our impressions. We do not recognize the real and substantial world in the first casual sensations, but only in familiar and current images, that is, in thoughts. All truth accordingly has to take this shape; the unconscious mind, or instinct, is unerring, but its dictates have

not the form of truth, but appear as individual impulse, or appetite, seeking only its own gratification, and ending with that. What is added by consciousness is simply that the series of separate feelings and impulses is taken up into an ideal unity, brought together, not as merely affecting one person, but as belonging to one and the same general nature, and thus really, instead of casually, connected. Consciousness, then, is not the mere discovery of the individual by himself, but the discovery that he is not mere individual, but also universal. It is the discovery that his individuality is not mere fact, but truth. The conception of the genus, the complex of instances constituting the kind, does not merely include the individual as one of the instances, but takes in him its proper shape as self-conscious idea.

Consciousness is discovery of the truth, but it does not follow that it is infallible; one might as well say thoughts are infallible; it is only the place or condition of truth. Consciousness is infallible as far as it goes, but then it may go only to the most general category. I am conscious only as conscious of something, but what the something is requires investigation, and here the chance of error comes in. The *dicta* of consciousness require verification, only the verification does not consist in confronting them with the things to which they relate; for, first of all, it is difficult to see how this could be effected, or how an object in consciousness could be compared with one of which we are not conscious. That of which we are not conscious does not exist for us, nor lend itself to any comparisons. Those who require an external test for truth, independent of consciousness, ought at least to give us an example of what they mean. Instead of this, we find that whenever it is really the truth that they mean, they consider it to be self-evident, and not to require any external test. Mr. Lewes is one of the most determined foes of idealism, yet he has to admit* that the verdict of consciousness is the ultimate test of truth. Mr. J. S. Mill systematically demands external proof for all conclusions; but when he comes to the place in his philosophy where truth is needed, instead of looking round for external proof, he assumes his fundamental truth, Happiness, to

* Introduction, lxxii.

be its own sufficient reason and evidence. When all is said, the only conclusive test of truth is seeing it, and the endeavor to fortify that assurance by evidence of another nature, or by an appeal to any ulterior considerations, is apt to weaken what it is meant to support. The real effect of such an appeal is to admit that it is not truth we are seeking, but something else, — something more practically useful perhaps, at any rate more attainable, but something else. I appeal to the “external order” to know whether the baker has called, or whether his name is John Smith or Tom Brown, but not for assurance about what I see to be true.

Philosophy, then, is idealism. Does this mean that we are to take our own “ideas,” that is, our private feelings and opinions, for the truth? To do so may happen, no doubt, to idealists as to other people, but not in virtue of their idealism. On the contrary, idealism implies, first of all, a disbelief in the existence of any private or merely particular truth, and the belief that all truth is universal. And those who assume that idealists are peculiarly liable to such a confusion ought to explain what guaranty against it their own principles afford. Mr. J. S. Mill tells us* that it is the business of human intellect to adapt itself to the realities of things, and not to measure those realities by its own capacities of comprehension. But he omits to tell us by what ear-mark we are to know these realities when we see them, or how we can be infallibly certain that we have got hold of them. It is not, however, to idealism, but to the opposite way of thinking, that the immediate certainty, the simple *dictum* of consciousness, properly constitutes truth. Idealists, it is said, despise experience, because experience cannot give us absolute, unconditional truth. But this consequence, though binding enough for the theory which assumes experience to be the mere summing up of sensations, has no force for idealism; for the foundation of that view is the conviction that experience means comprehension of the limits and conditions that surround the fact, reconciliation of them with the truth as not negative to that, but instrumental and necessary to its fulfilment. Experience accordingly, in this view of it, does not consist in rectifying our inferences by the

* Logic, II. 110.

things to which they relate, but in rectifying the old inferences by the new, by thinking our thoughts over again and recognizing in them ever wider relations of the particular facts.

This is metaphysics ; it is what everybody does, only that one man carries the process somewhat farther than another. The epithets “ metaphysical ” and “ theoretical ” are often applied in a disparaging sense ; but all they indicate amounts to this, that some persons require a stricter and completer statement than their neighbors see to be needful.

The misconceptions to which the attempt is exposed are well exemplified in the current notions about Hegel’s philosophy. Any stick is thought good enough for beating a metaphysical dog ; and Hegel, the most metaphysical of metaphysicians, gets even less law than the rest of his tribe. The assertions we constantly hear made about his doctrines and their necessary implications furnish, perhaps, as good specimens as could be found of that famous method of evolving truth from the depths of interior consciousness to which metaphysicians, and especially German metaphysicians, are supposed to be addicted. Thus, for example, we hear him described as a fantastic dreamer, who endeavored, by mere force of paradox, to impose his dreams upon other people for reality, and upon a foundation of mere postulates, destitute of all warrant except in his own perverse fancy, to rear a vast superstructure of sophistry, crowned at last by conclusions repugnant alike to common sense and sound feeling. Now it is open, of course, to any one to show, if he can, that all this is the real effect of Hegel’s doctrines, no matter what they pretend. Only it would be but prudent, in dealing with a phenomenon so considerable, or at all events so extensive in its influence, to take somewhat commensurate pains, first of all, to understand it. Anybody, who will give himself the trouble to look into Hegel with his own eyes, will see very readily, that, although it may be easy enough to snap up a few phrases and formulas from notes and prefaces, yet to get any connected view of the whole must require a good deal of labor. This he is at liberty to decline ; but, declining it, he foregoes the right of judgment. But if he is willing to make the effort, he will probably soon discover, that, whatever Hegel may have accomplished, what he undertook was something very different.

He was before all things the enemy of postulates, and of those pregnant sayings that contain a whole philosophy in a phrase or two, which the neophyte has only to receive in the right spirit. In one of his earlier essays he complains that the entrance to philosophy is all spun over and covered up with postulates, *dicta* to be received with implicit belief and without any discussion of their meaning. His position is, that nothing of the kind is needed or useful in the search for truth; that the truth is not to be taken on trust, but must show itself for what it is; and that it is abundantly able to do so, being, like the light, evidence of itself and of the darkness, and sure to declare itself, if only we remove the obstructions which are in us, our prejudices, and, the tacit reserves and qualifications with which we usually receive it. The first conditions of sound thinking are candor and the steady conviction that nothing is true but the truth. If we have to bargain that none of our pet beliefs shall suffer or seem to suffer, if we have not firm faith that nothing can suffer but error, our view is unavoidably distorted from the outset.

The essence of Hegel's method consists in taking any statement, any fact that offers, at its own valuation, and treating it as if it were truth. In this way its inherent limitations are sure to show themselves, and not simply as error, but as an advance towards a more complete statement. If I say it is day or night, or that this cloud or this tree is before me, and imagine this immediate certainty to be the truth, I have only to treat it as such, — to treat it, that is, as if it were permanent, unalterable, and independent of any action of mine, — and I speedily discover the mistake. The day becomes night and the night day by mere lapse of time, and it is sufficient that I turn upon my heel to change the fact about the tree into a fact of totally different nature. Thus the fact considered as a truth, as a totality, is confuted and set aside; but at the same time it is confirmed and enlarged by being shown in necessary connection with a more extensive fact. It does not lose, but gains in importance by being relative instead of absolute.

It is a favorite device of Hegel's to show how the paradoxes and self-contradictions which the understanding perpetually encounters, but which it usually dodges and derides as meta-

physical subtleties when called to notice them, are in reality the coming to light of what is wanting in its own statements, and needed to make them true.

A signal instance of this is given in the famous paradox with which Hegel's Logic begins, that Being and Nothing are the same. Whatever may be said of it from his point of view, it seems at any rate inevitable from the point of view in which reality is assumed to mean the matter-of-fact, actually existing things, the universe of Being, of which the ultimate truth, the attribute common to the whole, is that they *are*. For then the aim of philosophy must be to state as comprehensively as possible what *is*, or pure Being freed from all that tends to limit or modify it. The goal of science, according to Mr. Lewes,* is to grasp the universe as a single fact. "We have," he says, "already reached the sublime height of regarding all phenomena simply as modifications of each other, being, indeed, only different *expressions* of equivalent *relations*, different *signs* of the same quantities." The difference is superficial, there is no ultimate difference. This is the famous doctrine of the correlation of forces, or the conservation of Force. The sum of existing forces is always the same; nothing is lost, nothing comes to an end and deceases, but, when it seems to have deceased, has in truth only changed its shape,—handed itself over to Being to receive a new shape. Seen from this height, all that gives color or actuality to the universe vanishes, and "the pied and painted immensity of the phenomenal" fades out into the white light of pure Being. There is a certain sublimity, an Oriental largeness, in this conception of a unity effacing all distinctions; and, taken as a negative idealism, a protest against the deification of the immediate fact, it has its place. But taken by itself, and as if it were a complete statement, this immensity seems rather vague and empty. Suppose it proved that all the phenomena of the universe, moral and physical, are only modes of one supreme fact, say of Motion, what would this amount to beyond saying that all this immense variety exists, and that this is all we at last know about it? It soon becomes evident that this Being, which is definable only as not-this, not-that, and not-the-other, differs from Nought only in

* Introduction, lxv.

name. What is the ultimate difference between them? There is none; for we have declared that no differences are ultimate, that all are secondary and superimposed upon an original sameness. It is a sublimity of void and negation, which cannot be anything, unless something be supplied from without. Our Being is a mere name from which we have removed bit by bit all that gave it meaning. In pure light, as Hegel says, nothing more is to be seen than in pure darkness: there is nothing but the abstract condition of seeing the visibility of anything that may chance to come into this vacuum and interrupt it. For any actual seeing, there must be something opaque to encounter and reflect the light; and if everything of this nature, everything negative to light, have been swept out of our pure and sublime universe, nothing remains but to smuggle it in again, as it were, by the back door, in order to give the light something to overcome and irradiate. Without negation, without limiting outline, all things melt together and lose their distinctive being. The form is just as necessary as the matter; we may leave out successively every particular form, but we cannot leave out form itself. There may be nothing vital in the exact shape or in the existence of these particular oak-leaves, or those hills yonder; we can easily fancy them omitted, and something else in their places; but we cannot omit them and suppose mere Being in their place, and if we think we can, the mistake appears as soon as we try it and find in their place — Nothing. This is what we said, but not what we meant. These particulars, insignificant as they seem, have, then, some advantage over mere Being; something is added as well as something subtracted by their limitations. The limitations cannot be altogether hostile to the reality, but partly belong to and affirm it. In order to state our real meaning, we ought not to exclude limitation, but to distinguish between the different kinds of limitation, to retain what is essential and affirmative, and exclude only what is false and accidental. What we meant is not Being pure, any more than Nought, but their unity, in which each is seen as affirmative of the other and leading to it, — the Becoming (*Werden*), as Hegel calls it, to which coming into Being and going out of Being equally belong, — Being as participle, and not mere substantive result.

It is negation, limit, determination, that gives reality to the vague possibility, — the child's universe of an infinite *may-be*, an infinite something which in each particular is equivalent to Nothing. The something becomes something other, something of definite quality and fixed constitution, not simply self-identical, or only including itself, but also excluding all that is not itself.

But this exclusion of the other is determinate relation to it; there must be some common ground, some ultimate identity, else they could not affect one another. This identity is not the sameness of all things in pure Being, mere indifference, but contains diversity as subordinate to itself, as the means through which the identity realizes and manifests itself, the needful resistance to the force that overcomes it. We cannot conceive the universe as constructed by a simple impulse or of a single element, as force alone or matter alone, but there must be antagonism, compound impulses, force, and inertia, negation of force. This is the dualism which, under one form or another, science encounters whenever it attempts to state first principles. All the laws of matter presuppose an unceasing conflict in every particle. The particle must obey, but it must not obey too well, lest the law fail for very generality. Attraction left to itself would condense all things into a mathematical point, and perish for lack of something to overcome. In order to its own realization, it must be coupled with repulsion and reduced to a tendency, never quite accomplishing its purpose. Were the force sentient, it would look on what withstands it as mere accidental hindrance, a sluggishness or stubbornness of matter, which it has the right to set aside. But the other might with equal justice consider itself as the primary and positive, and its antagonist as the accident. To us, looking on, it is evident that neither is superfluous or accidental, that somehow both are requisite and belong to one whole, but to each of them the presence of the other is mere hindrance, perturbation, perhaps never to be escaped from, but never accepted.

Such a result, however, cannot be considered satisfactory; the problem remains unsolved, and apparently impossible to solve. Modern science, it is true, cheerfully takes the failure upon itself, ascribing it to the necessary imperfections of human facul-

ties. For convenience of speech and to gratify an irresistible tendency to personification of everything that affects us, we coin these terms "force" and "matter," but they do not express anything real, but only the points of view from which we look upon phenomena, and the puzzle and the contradiction show only the fragmentary nature of our conceptions.

But if neither force nor matter have any reality, what is the reality? The answer is, the facts are the reality; stick to the facts, and be content with them, and with the miracle of existence. This, however, is easier said than done. Wonder, it is true, is the starting-point of science, but then it is not a barren wonder, and it does not become science until the wondering is past, and comprehension begun. How did we find out that any contradiction existed? Simple apprehension does not busy itself with comparisons or contradictions; its business is with the present and immediate, and whenever it quits that, it transcends its province. The truth is, this moderation, this abnegation of all pretension to grasp ultimate and absolute truth, is not very serious, for the question resigned as insoluble is, in fact, decided. To state the problem is to propose a solution. To say that the ultimate essence of things cannot be known implies that there is such an essence, something in the things beyond what we see and touch, and implies also a theory about it, and so leaves the door open to other theories.

To declare that our ignorance is *necessary* is to say that we know the grounds of it, and something of the nature of that to which it relates. If these supposed limitations of our faculties were essential, we should never discover them; for to know the limit is to be mentally beyond it. But were the acquiescence in human limitations really as thorough-going as it pretends, it could not stop short of total disbelief in the validity of experience; for there is no reason to confine the puzzle to the ultimate nature of things; their proximate nature is just as incomprehensible. It would be a suicide of science, in which the doubt itself would expire.

It is true, however, that, if by the world of reality we understand only the material or finite world, it is incomprehensible, because the two sides, Being and Limitation, although they come together in every particle, yet remain intrinsically

separate and indifferent to each other, mere opposites, that somehow meet, but constantly tend to part company. The thing does not create its own limits, but suffers them; this is its definition as finite being or thing. The finite is not simply the conditioned, that which has limits, or comes to an end, but that which has its end or condition in something else, and so stops, or is *finished*, before it can display the reason of its existence. The reason appears outside of it in something else, or in a series, but in the thing only as a stern destiny, driving it to go beyond its limits, and so to perish. The chemical processes eternally going on in the natural world are nothing but the efforts which each thing makes to get out of itself, to throw off this false show of indifference towards other things, and to realize the ulterior purpose of its being. Hence the sadness that hangs over the Finite, "the painful kingdom of Time and Space." It is painful, because in it the thing seems not to come to its rights, but to be sacrificed to a remote and foreign purpose. The end appears only as accident, to comprehend the thing as it stands would be to comprehend it as accidental, and not displaying its real nature.

But the same perception that teaches us the shallowness and illusiveness of the phenomenal world can cure the grief it inflicts. There is another side to this short-coming; the shallowness and evanescence appear only by contrast to something stable and real which emerges and establishes itself through the illusiveness and the passing away. The falling leaf discloses the next year's bud; the flower gives way to the fruit. Would it be better for it to persist, like the dry *immortelles*, yielding no fruit? Our fret over the shallowness of experience and the illusiveness of life seems, therefore, a little exaggerated. The defect becomes insignificant just because it is not to be perpetuated; the incomprehensibleness of Nature, of the outward, may be endured, when it is seen that the truth is not in it, but elsewhere,—when we have found that the reality we seek is not the immediate fact, but the fact in relation, and necessarily involving other facts.

The particular individual thing turns out to be in truth universal, and its appearance of individuality illusive. To science the world of individual things is only phenomenal; truth be-

longs only to that in them which is not individual, to the general laws, the fixed properties and relations that pervade multitudes of things,—the constants amidst the endless variety and mutability of phenomena. These alone it regards, all else it unhesitatingly neglects; the peculiarities, however obvious, that distinguish phenomena of the same kind it passes over as mere perturbations, not belonging to the nature of the thing, but only to the particular circumstances of its production. Science concerns itself with the class alone, not with the individual; any stubbornly persistent individuality it regards as due to some abnormality in the phenomenon, or defect in our knowledge, which it is the office of science as far as possible to eliminate.

The inductive philosophers since Kant cheerfully admit that we know only phenomena, not things as they are in themselves; but they do not seem always to perceive that this is idealism; since all that is positive in the result is, that truth is the product of reflection, not of direct intuition. But if, after having thus idealized matter and refused to recognize in it any truth except what the mind establishes, we still adhere to the postulate that individual things alone are real, the conclusion is unavoidable that truth and reality can never meet, that truth is non-existent, and the reality always something different from the object of knowledge. This invariable difference, stated in the form of an axiom, is the so-called law of causation. It is, in fact, the net result of empiricism stated absolutely or as truth. "All ultimate laws," says Mr. J. S. Mill, "are laws of causation; and the only universal law beyond the pale of mathematics is the law of universal causation, namely, that every phenomenon has a phenomenal cause, has some phenomenon other than itself, or some combination of phenomena, on which it is invariably and unconditionally consequent. It is only on the universality of this law that the possibility rests of establishing a canon of induction." All that is invariable or unconditional in the matter, however, is that the effect must have *some* cause, not that it must have this particular cause; that is only an empirical fact, to be proved by evidence and reasoning like any other fact. All that is really asserted by the law is, that things do not happen all at once, but successively. The

student of the physical laws sees in the phenomena they embrace an endless complication, of which he can say only that it is endless. Each thing is what it is through another, and this again through another, and so on forever. The end is never reached ; the cause is itself effect ; the totality, the comprehensible whole, remains unattainable. It is not wonderful that to this view Nature should be a mystery and incomprehensible ; for on this basis classification does not express anything in the things classified, but only the point of view from which they are considered. The laws of phenomena do not touch the thing, but only the class ; the real object of the law is the mental image, the theory of the thing. That the classification is a natural one will mean only that it is coherent and serves the turn, not that anything corresponding to it exists in Nature.

It is not strange that those who hold this view should be inclined to despise metaphysics for giving so much importance to empty names ; for to this view all names are empty. But then they also ought to confess that to them knowledge is impossible and inconceivable. If our intuitions are dumb, unable to declare what they behold, and our conceptions and judgments blind, conversant only with the inward world of subjective feeling, it is not easy to see how any accordance of object and thought is to be expected, or at any rate how it can ever be verified. Science, unless it be worth the while as demonstrated nonsense, as a circumstantial statement of the impossibility of knowledge, ought to stop and resign its task as hopeless.

Science, however, does not stop, but, though theoretically ready at all times to confess that its ideas are without reality, yet practically gets rid of the impediment by throwing the blame upon the imperfections of human faculties. It does not at once declare that ideas have no relation to the reality, but it assumes, that, in consequence of the constitution of our minds, they do not reach quite to the real things themselves, but only so far as the *order* in which they affect us. The object must of course be ultimately the *noumenon*, the thing as it is in itself ; but since this is beyond our reach, it cannot be the object *for us* ; the object for us must be something intermediate, an effect, reflection, or modification, and therefore different, to be sure, from the reality ; only as the difference is the same for all men, the

effect of it may be stricken out from all calculations alike, and we may go on reassured with our classifications, not, indeed, as if they expressed the absolute truth, but as expressing the truth *for us*.

Science proceeds with due humility, but a humility which is not liable to be called into much actual exercise ; whatever cannot be labelled and referred to its pigeon-hole is ignored, not violently or irreversibly, but only provisionally, so that, if the rubbish accumulates and can be sorted out, we make perhaps a new pigeon-hole for it ; meantime it is treated as if it did not exist, or at any rate had no right to exist. The scientific mind professes itself always open to conviction, ready to surrender any of its conclusions, provided it can be shown that they do not conform to facts ; or, in other words, it is more or less conscious that these results are not quite the truth, but indefinitely short of it. At the same time it is not always perceived that ignorance, however genuine and inevitable, cannot serve as basis for anything more than provisional conclusions, cannot be reasoned upon *a priori* as if it were truth. In this way comes about the curious phenomena of a science whose first principles imply that knowledge is impossible : a sort of orthodoxy of scientific unbelief. In spite of all disclaimers, and of all theoretic impossibilities, the time comes, in every philosophy that follows out its conclusions with any earnestness, when it is seen that *something*, were it only our ignorance, must be true, and known absolutely and unconditionally, else science is mere trifling with words. And it is wonderful and interesting to see how the human mind, in its implicit certainty that mind alone at last constitutes reality, in spite of all prejudices and all postulates about its own limitations, so soon as it fairly admits them as *necessary*, proceeds to confer them upon Nature, and to hold them up for admiration as the laws of the world. What else is the law of universal causation but the necessary disconnectedness of truth and fact ? Our ignorance of the true connection of things, made systematic, becomes a rigorous indefeasibility in the *order* of phenomena, that is, in the way in which the disconnectedness shows itself. And the abstractness of our conceptions, which grasp only those properties common to many, instead of the

concrete individuality of each, is transfigured as the exact and unfailing necessity of the natural laws. This necessity means, in truth, only that these laws ignore to a greater or less extent, all the specialization, the actual differences of things, and declare all to be the same. The apple does not fall because it is apple, but obeys a force that asks not whether it is apple or acorn or planet, degrading all diversities to the class of accident. It is not the apple that the law regards, but only the quantum of matter in whatever form. The only reality to the law is the atom, the body emptied of all specific character. These laws, instead of prescribing the form of the thing, or declaring the reason why it has this character rather than another, declare that there is no reason in it, that nothing is essential in it except the common elements and properties. The properties, we are told, make the thing. But it is not the mere properties, but the special determination of them, that make it what it is. Weight, color, &c., do not of themselves describe anything; nor, even as specific gravity, particular form, &c., do they show themselves to be necessarily connected, but, on the contrary, quite indifferent to each other. How do they come to cohere, and in these proportions? No doubt each thing becomes what it is through the operation of natural forces; but the point is not so much the existence of these forces, or their demonstrable influence, as how they came to be checked and turned at the precise point needful to the result,—how sun and wind, rain and frost, soil and exposure, received the particular bias to produce apples upon one tree and acorns upon another. The wider the possible influence, the farther are we from seeing any necessary connection with the actual result; *that* is postponed, left to the operation of some remote and unknown cause,—in other words, to accident.

The universality and strict necessity of the natural laws, so often contrasted with the irregularity that belongs to the mind's operations, mean only irresistible accident, a violent and casual connection of things naturally indifferent to each other. What is real in each are the various matters and forces manifesting themselves in it,—in other words, its general conditions and possibilities, not the actual thing itself; *that* is only the accidental shape in which these matters and forces happen to

manifest themselves. It is not wonderful, then, that we cannot know things as they are in themselves. How should we, when they have no selves, when individuality in them means only perturbation, defect either in them or in our perception? To know them as individuals would be to know them falsely.

Thus the concrete thing is sacrificed to its essential properties; these constitute the reality; the thing is only the medium in which these properties show themselves, and remains always an empirical fact, not included in the law. Essence, Locke says, relates only to sorts, not to individuals. Yet individuals alone exist. So that we arrive at last at a dualism of unessential existence and non-existent essence, — or rather, at an existence which ought to be unessential, but in fact embraces the whole material of knowledge, and an essence, an idea, which ought not to exist except as a mere abstraction, but is nevertheless the real object of the law. Mr. Lewes* speaks of Hegel's method of the "identity of contradictories" with a pitying contempt, as if really no sensible person could wish to argue about such a position, but only to pass on with swift steps, and perhaps a glance in passing at so signal an instance of the insanity of metaphysics. But is it, then, more satisfactory to accept as our final result an *unsolved* contradiction? This may be wisdom, but it certainly is not science. "In our conceptions of force and matter," says Du Bois-Reymond,† "we see recur the same dualism which forces itself upon us in the conception of God and the world, soul and body. It is only, in more refined shape, the same need that impelled mankind to people grove and fountain, rock, air, and sea, with creatures of their own fancy. . . . But if it be asked, What remains, then, if neither force nor matter have any existence? those who think with me answer thus: It is not given to the human mind in these matters to get beyond a final contradiction. . . . We possess enough of the spirit of renunciation to reconcile ourselves to the belief that the goal of science is not at last to comprehend the ultimate nature of things, but to make comprehensible that it is not to be comprehended. . . . To the mind that is not afraid to face its own conclusions, the universe thus resolves

* II. 536.

† Untersuchungen üb. thierische Elektrizität, I. xl.

itself into matter in motion, whose nature we hold it impossible to comprehend."

The real effect of this conclusion is somewhat disguised by such terms as the ultimate nature or essence of things, or things as they are in themselves, — as if truth could relate to anything else than the real nature of its object. But there is no ground for the implied distinction; the proximate nature of things is just as self-contradictory, — or, in other words, the contradiction exists in matters of the most familiar experience. In every living organism we see the ideal conception of the genus in act of creating its own embodiment, and identifying itself with matter in a unity which is not sameness, but preserves and confirms the distinctness of parts. The living body is one, not as the stone is one, because its parts do not happen to be separated, but because to separate them would be to change their nature and make them into something else. The parts are not parts merely, but members; the whole implies each part and each part the whole. The parts of the stone are what they are, whether joined together or not; there is nothing essential in their union, it is nothing to them, they gain nothing from it, nor lose anything, if it is destroyed. But the hand, as Aristotle says, is not a hand, when it is cut off. The difference, Locke says, between a machine, for example, a watch, and the body of an animal, is, that, while in each there is a fit organization or constitution of parts to a certain end, in the machine a force has to be added from without sufficient to enable it to attain the end, whilst in the animal the fitness of organization and the motion wherein life consists begin together, — and he might have added, are inseparable, incapable of existing without each other. Of course such a unity is incomprehensible, if to comprehend it means to analyze it into its simple ingredients, and then to take these as the explanation.

Induction, Lord Bacon tells us, makes "a complete solution and separation of Nature, not indeed by fire, but by the mind, which is a kind of divine fire. The first work, therefore, of true induction (as far as regards the discovery of Forms) is the rejection and exclusion of the several natures which are not found in some instance where the given nature is present, or are found in some instance where the given nature is absent. . . . Then,

indeed, after the rejection and exclusion has been duly made, there will remain at the bottom, all light opinions vanishing into smoke, a Form affirmative, solid and true and well defined." * All specific differences in substances which we have decided to be of the same kind are to be treated as phantoms and false images of things, which, in concrete substances, come before us in disguise. What is true are the simple elements; the connection in which they happen to occur is unessential. "The particle of iron," says Du Bois-Reymond, "surely is and remains the same, whether crossing the earth's orbit in a meteoric stone, or rushing over the rails in a locomotive wheel, or coursing in a blood-cell through a poet's temple." "It is not wonderful," Dr. Moleschott thinks, "that the carbon of one's heart, or the nitrogen of one's brain, may have already belonged to an Egyptian or a negro. Such a transmigration of souls is the strictest consequence of the circulation of matter. The miracle lies in the eternity of matter throughout all the changes of form, in the transfer of material from form to form, in the circulation of matter as the ultimate ground of earthly existence." That is to say, all that makes anything precisely itself, rock or plant, beast or man, saint or sinner, is due to the circumstances; and this lofty prerogative of matter means only the emptiness and impotence which make it equally fit for any connection, and recipient indifferently of the most opposite qualities. Without phosphorus, says Dr. Moleschott, there is no thinking. But does he mean that phosphorus thinks? — that this is one of the properties of phosphorus, belonging to it as its specific gravity belongs to it? Not at all. He means that this particular operation is only one of a great variety of operations in which phosphorus is instrumental, — that it is completely indifferent to the particle of phosphorus, whether it shines in a stinking mackerel or thinks in the brain of Shakespeare. All depends on the position. But then either nothing of importance is really effected, or else it is by virtue of something else than the alleged cause; the efficient cause is not the phosphorus, but the complex of circumstances, in which the phosphorus disappears as insignificant. The attempt to reduce the phenomena of life to the laws of the molecular forces of matter

* Nov. Org. II. §§ xvi, xxxv.

disposes of the problem by ignoring it. Either it assumes that the difference between animate and inanimate, phosphorus and thought, is unimportant, or else it omits to show how the diversity can be accounted for, and how the law can have such extreme flexibility. Either the difference, or else the connection, has to be dropped; for they are incompatible. But it helps nothing to take them up alternately, and to leave their incompatibility out of sight, merely on the ground that it is a matter of course. It may be difficult to see how a thing can be at once universal and particular, individual and essential, thought and matter, or how it can exist without paying the slightest regard to the law of excluded middle; but the difficulty is not avoided by treating it sometimes as the one and sometimes as the other. If these attributes are really incompatible, then, whenever one set is affirmed, the other is denied. Iron and phosphorus become conscious, and, engaged in thinking, appear certainly in new and surprising characters, very different from their ordinary functions. Which are the true? It is open to us, if we are unable to reconcile them, either to deny that the new functions have any real connection with these substances, or, on the other hand, to declare that here alone their true nature is to be seen. But we have no right to ascribe the phenomena of mind to an agency from which we have excluded mind, and then to use our assumption as proving that mind is only a mode of matter. Either it is the phosphorus that thinks, or else the less said about phosphorus in this connection the better. The truth is, the difference and the connection are equally patent. If our theory can explain this, well; but if, because it cannot, we content ourselves with insisting upon each in turn, and rely upon the common sense of mankind to supply what we omit,—if we insist upon the phosphorus in the brain, and trust at the same time that nobody will suppose it is *as* phosphorus that it thinks, this is but a precarious kind of science. It is like Hume's theory of causation, or necessary connection deduced from a connection in which the necessity is left out. The peculiarity of this sort of reasoning consists in entrusting the defence of weak points to the very enormity of the weakness, too great to be thought of. Mankind cannot be induced to overlook the *nexus* of cause and effect,

soul and body, and so we need not trouble ourselves to reconcile it with our postulates. The security of the conclusion has a retroactive effect to heal any want of coherence in the premises.

The theory fails, then, to account for some of the most important facts, fails either to justify or to explain them away, and can only ignore them. But although the difficulty it encounters is more apparent in the case of the phenomena of life, it is not more real, for it is in truth a difficulty of our own making, and lies in the premises, in the assumption that all substance and reality are given at once in the simple facts, the immediate certainty of direct intuition. Were this true, and were all our thinking governed by the "law of excluded middle," namely, that everything is irrevocably *A* or not *A*, and not both or anything else, our knowledge would be reduced to proper names, that is, to names without meaning. For all generalization and meaning given to the name would involve a begging of the question; nothing material could be added to the original intuition by inference, or on the ground of analogy, for the inference would have to assume, first of all, that different cases are the same case. Direct intuition regards only the present and immediate, and can give no claim to speak of what is out of the field of vision. To speak of separate facts as having the same meaning, or as only different instances of the same fact, on the ground of a merely ideal relation, a supposed analogy between them, would be to neglect an essential feature of the fact in favor of a mere hypothesis. The inference, then, either really adds nothing to the name, or else falsifies it by extending it beyond the fact. All statements will be reducible either to mere verbal propositions or else to guesses. To say, for example, that snow is white will either amount only to saying, in a different way, that snow is snow, or else it is a groundless assumption. Now every proposition that we can frame, if it is anything more than a mere form of words, has to extend the meaning of the name beyond the immediate fact, and not only to identify, but also to contrast subject and attribute. If I say that snow is snow, there is no more truth or meaning in this undeniable fact than there is in the creaking of a door, which is also an undeniable fact. In order

to have any meaning, the statement must not have this logical undeniableness, — it must be logically deniable.

If the “identity of contradictories” seems an absurdity, it is worth considering that all separate facts, if they are truths as they stand, are contradictories, and that to bring any two of them together is to identify contradictories. The unconditional sequence which Mr. J. S. Mill demands as indispensable to science is just this identification or necessary connection of distinct facts. They must be distinct, and yet their connection must be more certain and real than their separate existence, for that is only empirical; but the connection must be not simply invariable, or proved by the same evidence with the facts themselves, but it must be proved by better evidence, — it must be absolutely, and not empirically true. The connection might be invariable, coextensive with all experience, and yet in truth accidental, due to some external influence that may conceivably cease to operate. For instance, the succession of day and night is invariable, but not unconditional, for they succeed each other only provided that the presence and absence of the sun succeed each other; and if this alternation were to cease, we might have either day or night unfollowed by one another. Now what is this better evidence which is to control the facts of experience? The example which Mr. Mill gives is the rotation of the earth as the cause of day and night. But this, unless we know the reason of it and why it *must* rotate, is just as much an empirical fact as the succession, — indeed, the same fact, only stated in another way. The question recurs, whether, in any case, evidence is to be had of a kind intrinsically superior to the empirical fact of juxtaposition, — evidence of an *a priori* kind, to prove essential connection between different facts. This is the problem stated in Kant’s famous question, How are synthetic judgments *a priori* possible? Synthetic judgments are those which add something material to the simple data of direct intuition. And as every proposition, except merely verbal propositions, involves such a synthesis, the only question is, whether there is ever any scientific ground for it, — whether, for example, the notion of causation can be stated absolutely as truth, or whether it is to be accepted as mere psychological fact, an unaccountable prejudice in the hu-

man mind. The feeling may be ever so necessary, in the sense that we cannot help having it; but this does not prove that it indicates anything in external Nature. This is the point raised by the term *a priori*; it is not asked whether such judgments have any validity before or in the absence of experience, but only whether they really mean anything beyond the simple enumeration of phenomena.

This problem lies at the root of all science; the answer to it decides whether our knowledge has any right to the name, or is only a circumstantial futility. It is sure to come up, therefore, under one form or another, and to press for a solution, wherever the discussion goes deep enough, and the need of the very truth is felt. There must be identity, and there must be difference, and, without both together in one, the truth is not reached. Upon the grounds of inductive logic it is not easy to see how such a synthesis as this is possible, for it at once sets aside the great law of identity to which all synthetic judgments are reducible.

It is perfectly consistent, therefore, in Mr. Lewes, as in Hobbes before him, to limit truth to identical propositions. But this is a moderation which is not likely to find imitators, at least when the true effect of it is felt; for there can be but little interest in inventing different statements of our ignorance. And it is not strange that philosophers of his school should be found quietly accepting *utiliter* the common admission of necessary connection in the universe, though they can find nothing to which it can be applied except the *order* of phenomena, that is, the fact of their separateness stated absolutely. Only they ought to acknowledge that it is after all a mere prejudice, and at bottom self-contradictory. There is no reason for giving any peculiar force to the mere fact of antecedence: the laying of the table-cloth in a well-ordered household is not the cause of the dinner; that, however, regularly succeeds it. Our acquaintance with their *order* cannot stand on any securer ground than our acquaintance with the facts themselves. Either our knowledge is unconditional, absolute, and reaches the self of the thing, or else our knowledge of the order is just as superficial. If causation means nothing more than that we have happened to notice the recurrence of certain

sequences, this is a matter of accident which no amount of recurrence can make anything more ; but if it implies a real and necessary connection of separate facts, then here is the synthesis *a priori*, the truth of the facts, the *noumenon* or soul of the thing.

The difficulty which the law of “excluded middle” has to encounter is more apparent, when its application to the living organism is attempted ; because the middle that is here excluded turns out to be the essential character of the object. Life is an answer in concrete shape to the question, How is a necessary synthesis to be conceived ? Here is the synthesis. Instead of the vague indifference, the mere identity of each with itself, that characterizes the inanimate, life establishes essential relations between form and materials, part and whole, not obliterating their differences, but confirming and realizing them, whilst it identifies them in a unity of purpose. In the inanimate, too, the mind discovers purpose ; the indifference of the thing is illusive, — real only for it, and perishes with it ; but the purpose seems not its own, but foreign, and even hostile. The aggressive forces of Nature waste away the rock, — not, indeed, for the sake of destruction, but for the sake of the coming plant and animal ; but to the rock it is mere annihilation. Here cause and effect, end and means, are really distinct ; and this is the reason why the truth cannot be seen in the separate facts, and why they are incomprehensible. Higher in the scale of being, the destruction is brought home to the thing, and appears as its own work. The bud ends itself by growing, and so the flower and the fruit. The continuity of purpose, thus coming to light, is seen to constitute a new and more important identity, which we recognize to the exclusion of the separate facts. We take the whole cycle together, and refuse, in spite of the evidence of our senses, to treat the different factors as the reality. We say the seed or the bud is not dead ; but what we mean is, the plant, the ideal whole. The seed is gone as truly as the rock is gone when it is turned into soil, but it is expended for its own ends as plant. The living body is *causa sui*, means and end in one ; and it is this, and not any difference in the materials or the forces employed, that distinguishes the animate from the inanimate. It is not

the means used, but that the use, the special determination, is the work of the organism itself, instead of being left to outside influence. "Life," says Claude Bernard,* "is creation. . . . So that what characterizes the living machine is not the nature of its physico-chemical properties, however complex, but the creation of this machine, which develops itself under our eyes in the conditions that belong to it, and according to a definite idea, which expresses the nature of the living body, and the essence of life itself. When a chicken is formed in the egg, it is not the formation of the animal body, considered as a combination of chemical elements, that essentially characterizes the vital force. This combination takes place according to the laws that govern the chemico-physical properties of matter. But what essentially belongs to the domain of life, and not to chemistry or physics or anything else, is the *idea* that directs this vital evolution. . . . The physico-chemical means of manifestation are common to all the phenomena of Nature, and lie mingled pell-mell like letters of the alphabet in a box, whence they are sought out by the force which is to give expression to the most various thoughts and contrivances." The physical and chemical phenomena are explained by showing their conditions, — that is, by pointing out something else on which they depend. There is no reason for insisting upon any fixed relation of sequence. That every effect must have a cause amounts only to this, that things do not happen all at once, but successively, and that different bodies occupy different portions of space. So the cause must have an effect, and this is just as important. But there is no such general necessity in the case of any *particular* sequence; the *must* does not descend to particulars, but leaves them to be ascertained empirically. What is meant is only that the given fact belongs to a certain complex of related facts. The order is not important; we may say, for example, that rain is the cause of moisture, or that moisture is the cause of rain. In this way we get our facts sorted out into bundles. This is a great convenience in dealing with them; but it does not of itself bring us nearer the truth, but only enlarges the fact. The phenomenon is explained by removing its boundaries, and showing that it be-

* Introduction à l'Étude de la Médecine Experimentale, p. 153.

longs to some other and more extensive phenomena, of which it is only an instance. Thus the complete discovery and realization of the cause identifies it with the effect as essentially the same, and differing only accidentally or as a different instance. We say, for example, that rain is the cause of moisture. Here the cause is only the effect plus the accident of being raised into the air and let fall. Or, to take another instance, which has been cited to show the distinction between cause and effect, the explosion of a gun as the effect of pulling the trigger. Here the various steps of which the cause consists, the liberation of the spring, the explosion of the cap, &c., do not become causative until they are merged in their effects; before that, they are only possibilities which may or may not produce the effect. The distinction thus confutes itself, shows itself as in truth a nullity, something which must cease to exist before cause can be cause, or effect effect.

The existence of cause and effect as merely distinct facts, each simply identical with itself and indifferent to the other, and coming together by some extraneous influence, is what makes the finiteness of the physical world. It is a false or merely apparent existence; and the law of universal causation, the law, that is, that every fact has some other fact to which it is not indifferent, but necessarily related, is only the declaration of the falsity. This is the whole extent of the law. It does not point out what the precise connection is, but only that there must be some connection, something to which the given fact is not indifferent.

In the physical world causation seems like the accidental coming together of things naturally separate, and constantly endeavoring to escape from their enforced association. The moving body seeks rest, seeks to transfer to something else the motion it has received; the acid seeks to escape from the base into new combinations. All the "circulation of matter" is the elimination of the accident, the repudiation in turn of each special determination received, and the endeavor to exist as individual, *causa sui*, and not bound to the modification received in the effect. But the cause can exist only in the effect; the chemical element is defined by its reactions, its affinities; the individuality depends at last upon universality, the

ultimate identity of each with its opposite. On the other hand, this identity can show itself only through the diversity which it overrules and sets aside.

Thus the truth indicated in causation is the identity of opposites, and the law of excluded middle, so far from being a law of truth, is the law only of that from which truth is excluded,—the law of the finite, in which the particular connection only happens, but does not show itself as necessary. In the finite the event appears as accident, and, however familiar or certain to occur, has in it always something violent and irrational, something opposite to law. The mind does not recognize in it its own law, or only in travesty and dislocation ; means and end do not come together as one ; but, on the one hand, an endless succession of means, and, on the other, the end, in each case, as mere negation, annihilation. To say that everything must have a cause is to say that everything is at once A and not-A. If the law of excluded middle had any validity, the notion of causation would be a mere unscientific prejudice, a strange whim of splitting up our facts into antagonistic couples, accounted for, perhaps, as expressing the different directions from which the mind has attempted and failed to comprehend its facts. But looking at the phenomena of life, we may see, if our postulates will let us, the plain justification of the prejudice. Here the difference of cause and effect is not a vanishing unreal difference, but is distinctly implied and provided for in the organization which sets it aside. If it is true that thinking cannot go on without the presence of phosphorus in the brain, it is equally certain that phosphorus does not think, and that thought cannot be produced by merely introducing it into the substance of the brain. It takes effect, not simply from the accident of position, but through the agency of the organism itself. Food is food, and poison poison, not of themselves or accidentally, but through the normal operation and contrivance of the living body itself.

The truth implied in causation, then, is not an outward law, but an inward necessity of the thing itself, which is not overruled, but spontaneous, self-regulated. It is a strange fancy that exemplifies a universe of law, a self-regulated system, by a scheme in which every particular is recalcitrant, nega-

tive to the law,—in which the law is true of all, but false of each individual.

All things that are, says Hooker, have some operation not violent nor casual. This is their real law. But this condition is fully answered only by a necessity inherent in the individual, a law of his own nature,—that is, by freedom. The opinion that freedom and necessity are incompatible rests on the assumption that *necessary* means *compelled by something else*. This is true of physical necessity, because it is implied in the conception of the physical, the thing, that its reality is in something else, so that of itself it is destitute of anything that can really act, or that can be known as truth. This wonderful fancy of a *noumenon*, an ulterior reality standing behind what we see in Nature, is only the naïve confession of the searching mind, that what it finds in Nature is not merely short of the truth, but essentially different from the truth. It would not help us to have more of it, to have ever so much of it, nor should we give to our result anything of the force of truth by showing that nothing better is to be had. Those who argue that life is at bottom nothing more than mechanism usually adopt a very simple course. They begin by implicitly assuming that everything is at bottom mechanism, at least everything that can be known or needs to be taken into account in science. Then, whatever may be the success of their further argumentation, the main point is secure. If you urge that specialization, form, is essential and must be accounted for, their reply is, We have searched all the cavities and tissues, and find no soul, no principle of form there; but we will show you the physical and chemical forces at work there just as elsewhere, and if we have not yet succeeded in identifying all the vital phenomena with the operations of these forces, we are sure to succeed in the end, because—because there *is* nothing else.

A distinguished writer of this school * states the point in substance as follows: All changes that take place in the corporeal world are reducible at last to motions, and all motions to the resultants of rectilinear movements in the atoms that come together; so that, were it not for the difficulties of dissection, all the processes that go on in living beings, everything up to the

* E. Du Bois-Reymond, op. cit. I. xxxv.

problem of personal freedom, would be a matter of analytical mechanics. The problem of personal freedom, he seems to think, is beyond the domain of science; this must be left to each person to decide for himself. The exception is an important one, and would not be admitted, perhaps, by most of those who argue from the same premises. The reason for admitting it, no doubt, is, that the argument seems in danger of proving too much, and of disposing of the arguer too, as only a subjective phenomenon. But this is a purely practical inconvenience; scientifically speaking, the difficulty is no greater here than elsewhere. The difficulty is to account for any individuation, any specializing of the general properties and operations of matter. "The *principium individuationis*," says Locke,* "it is plain, is existence itself, which determines a being of any sort to a particular time and place incommunicable to two beings of the same kind." In other words, the thing is thus and so because it is. The solution is simple enough, and just as pertinent to the problem of human freedom as to any other. It consists in accepting *both* alternatives, A and not-A, at once, and justifying the expedient on the ground that everybody does and must do the same. We have only to say, then, that we are free because we are so, because we cannot help feeling our freedom. The conclusion, to be sure, has no scientific validity, and cannot be used in general reasoning; freedom is still a problem in analytical mechanics, so far as the freedom of mankind in general or in the long run is concerned, but in particulars and for private use it is a problem of a very different kind, — starting with the admission of individual initiative, and the assumption that there is something above all things essential in the individual. But this privilege of reversing the rule in favor of evident facts cannot well be restricted. The physiological fact, for example, that iron and phosphorus and carbon are requisite to the phenomena of life, however undeniable, is somewhat recondite, and may allowably be offset by the more evident fact that these things do not of themselves constitute life. The truth is, the supposed incompatibility is altogether imaginary: the living man is, as a matter of fact, phosphorus and thinking at the same time and without the slightest incon-

* Essay concerning Human Understanding, II. 27, § 3.

venience ; and to insist on the iron and phosphorus because they are there, and to leave out the special determination, the use that is made of them, because it is not contained in the materials themselves, is the reasoning of the child, who will not allow that the architect built the house, but says it was the mason and the carpenter, or the bricks and timbers. Nothing here, say these philosophers, but we will show you the same thing growing in the forest or stratified in the hillside, — the same, that is, substantially, though differently put together. If the argument is worth anything, it proves that the house does not exist. The answer is the house itself. Clay and stone and timber are not habitable ; this is an important difference, and not the less important because it depends *only* on the shaping and putting together, and not upon what the materials are where they are of no use.

The true cause is the idea, the thing as it is in itself ; and the only verification possible is the realizing of the idea, the coming to pass of what it implies. It is thus self-evident truth, and needs no outward confirmation ; or rather, the outwardness shows itself to be unreal, only apparent. The separateness of cause and effect, of idea and actuality, makes the finiteness of things ; and to get rid of, to transfigure the actual, through identification with its idea, is the end of life. In inanimate Nature this consummation is not reached, but falls always outside of the thing, and appears as annihilation of it as individual, and preservation only of the genus and the general properties and uses. In the living body a hint is given in the preservation of the form amidst the incessant destruction of the materials, and through their destruction. The body, says Moleschott, is a stove that consumes not only the fuel, but itself. The destruction does not stop, — on the contrary, it is accelerated, and whatever arrests it is fatal to life, — but shows itself as no longer destructive of the reality, but of what is opposed to the reality, namely, the separate individuality of the materials. They are assimilated, made subservient to the purposes of the organization, shown to be not really, but falsely separate.

The escape from finiteness is not through avoidance of the limitations or perpetuation of the finite, but by carrying out the limitations, and treating it as means, and not as finality. In

life is displayed the truth which the physico-chemical processes imply, but cannot embody. The soul, or principle of life, is not something separate from the body, to be put into it, but the truth of the body, and its separation is death.

In animal life, however, the end, though indicated, is not fully attained ; form and materials are still separable, though their separation is resisted by the whole force of the organization. So that here the *only*, the persistence of the materials and the corresponding abstractness or merely ideal existence of the form, has some ground in fact. The reason is, that in animal life the idea exists only implicitly, as a series of particulars which turn out to be connected with each other, but are not of themselves or consciously one. The animal is a whole in so far that his various actions and functions are circumscribed by the invisible outline of the kind, the constitution. This is really the motive in all he does ; but it is not felt as what it is, but only as accidental impulse,—the appetite of this ox for a particular bunch of grass, &c. The motives are *in truth* universal, and the individual in following his impulses accomplishes universal ends, but they do not appear to him as such. This discrepancy between the truth and the fact of his being the animal can never overcome, because it never presents itself to him ; the genus does not become individual, or the individual universal, but they only meet in certain particulars. The individual is therefore still unessential, the medium through which certain generic ends are attained, but not end in himself. We treat the animal according to his kind,—the ox according to the nature of oxen, and the dog according to the dog nature, and not as if each had rights of his own. The animal does after his kind, not after his convictions ; the kind must answer for him ; and it is to this, and not to him, that we are answerable for our treatment of him.

Why do we scruple to treat human beings after the same fashion, to use them and use them up for our own good purposes ? That we have the right to do so, provided we intend only the general good, is indeed the opinion of many persons. According to this view, mankind has rights only in the mass, and not as individuals ; all rights of individuals are included in the right to be well governed, judiciously used for the gen-

eral advantage. And indeed, if the individual is only the accidental shape in which the common attributes of humanity appear, rights can belong to him only in those particulars in which he is *not* individual, but identified with the mass. The "rights of man" will mean the rights of no man, but of an abstraction; and particular rights will in all cases rest on their own merits, that is, on the amount of force they bring to their support, and not on any general or intrinsic validity as right. In other words, right will be only a collective name for the prevailing arrangements of society.

The only ground upon which the individual can have any rights of his own, any rights as against society, is, that he is himself Man, and not merely an item which, taken with others, helps to constitute Man. It must be assumed that his governing motives are not merely *in truth* universal, that is, beneficent or directed by good purpose in the long run or by the act of coming together with others, but such of themselves and in their inception. He must see the general good as his good. Else it is inevitable that the mere wishes of the majority must in all cases constitute right. For numbers are always entitled to count against numbers and fragmentary rights,—rights that are wrong in one direction against such as are wrong in another. But if there are any perfect and indefeasible rights, any rights intrinsically and under all circumstances entitled to respect, this is as much as to say that in the subject of them the separation of individual and universal, specimen and kind, no longer governs.

In Man as a spiritual being, that is, as self-governed, the two sides, the abstract law and the unessential individuality, come together as one truth in the individual who is a law unto himself. To him humanity is not an abstraction; everything else rather is an abstraction, and has value only as instrumental to that. He sees the general purpose as his purpose, to which, therefore, nothing of his has to be sacrificed, but which on the contrary upholds and affirms his individuality. There is nothing inconceivable here, for it only requires that the truth shall be seen as it is, and that the individual shall recognize in particulars what he readily admits in general. Nothing is changed in the substance of the relation, but only in our perception.

The purposes of God in the world are sure to be accomplished, whether by free obedience or by the unfailing gravitation of selfishness; the only difference is, that in the one case we are free agents and in the other tools. We are not enslaved by yielding to necessity, to the law of the universe, but by yielding to the notion that this necessity contravenes freedom, by failure to recognize it as our own. Liberty to do as we please, to follow our impulses because we feel them, — this is the liberty which a stone has to fall when nothing prevents. True freedom is to see our real relations to the universe, and thereby to be emancipated from the delusion of a private and separate good.

It may be objected, perhaps, that no such individual exists, and that, whatever the rule ought to be, the rule that actually governs human conduct is self-interest; and in one sense no doubt this is true enough. But here again the idealist is entitled to appeal to facts as against these *a priori* deductions, — namely, to the fact of society. Society is a fact, and it is utterly inexplicable on the theory of universal selfishness, on the theory which treats the obvious fact of human selfishness as if it were truth and reality. No more chimerical scheme could be devised than to construct society, as it exists in civilized countries, out of the jostlings and balancings of a crowd of mere egotisms. Men are selfish; but it does not follow that self-interest, or the look solely to immediate gratification, really governs their conduct, although they perhaps mean that it shall and think it does. Society in its feeblest beginnings rests on the feeling, however dim and instinctive, as, for instance, in the sexual and parental impulses, that another's good is our good, and that we are interested to protect and further it. As civilization advances, the truth which these impulses indicate assumes more and more the shape of truth, of conviction, and conscious motive. The foundation of the state, Aristotle says, is not neighborhood or mutual advantage and protection, but the common sentiments of good and evil, justice and injustice. It may be that the truth is nowhere fully manifested, that the spirit of humanity is nowhere fully incarnate in any individual; but this is no obstacle to the conception of it. Philosophy is not concerned with our private mishaps and personal short-comings;

it is sufficient for its purpose to have perceived that they are private and personal, and do not affect the truth. And in this conception of a self—a humanity no longer self-seeking, because now self-finding—Philosophy attains its end, and sees in Spirit the final object of its search. Spirit is the self-proved reality, the self-existent truth, in which all deductions or short-comings are seen to be only means to the accomplishment of its purpose.

Being, Essence, Spirit, this trinity in unity recurs everywhere in Hegel; and the same triplicity, the same rhythm of immediate fact, ulterior reality, and concrete truth, governs the evolution of every part of the system.

It will be readily seen that what has been attempted here is not a systematic exposition or criticism of Hegel's philosophy, but only, by whatever expedient that occurred, to convey some indication of its general drift and method. A great deal of labor is needed, both in the way of interpretation and probably of development, before it can be made generally available. The labor would be well bestowed, for all philosophy at present must take this road, and the first question to be put to any new attempt is, whether it has got as far as this or not so far.

J. E. CABOT.

-
- ART. V.—1. *A History of the English Poor-Law, in Connection with the Legislation and other Circumstances affecting the Condition of the People.* By SIR GEORGE NICHOLLS, K. C. B. In Two Volumes. London. 1854.
2. *Report of the Committee of the General Court of Massachusetts on the Pauper Laws.* By JOSIAH QUINCY. Boston. 1821. pp. 36.
3. *Report of the Commissioners on the Subject of the Pauper System of the Commonwealth of Massachusetts.* (House Doc. No. 6, 1833.) By W. B. CALHOUN, HENRY SHAW, J. CALDWELL, and JOSEPH TUCKERMAN. pp. 97.
4. *Massachusetts State Charities. Report of the Special Joint Committee appointed to investigate the whole System of the*